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(54) Title: P13 ANTIGENS FROM BORRELIA

(57) Abstract

The invention relates to an isolated nucleic acid fragment which encodes a polypeptide fragment which exhibits a substantial immunological reactivity with a rabbit polyclonal antibody raised against a polypeptide having an apparent molecular weight of 13 kDa as determined by SDS-PAGE followed by visualization, said polypeptide being derived from *Borrelia burgdorferi* B313 and being encoded by the nucleotide sequence of SEQ ID NO:18, said rabbit polyclonal antibody exhibiting substantially no immunological reactivity with proteins from at least 95 % of spirochaetes randomly selected from the group consisting of *Borrelia hermsii*, *Borrelia crocidurae*, *Borrelia anserina*, and *Borrelia hispanica*, and/or hybridizes readily under highly stringent hybridization conditions with a DNA fragment having a nucleotide sequence selected from the group consisting of SEQ ID NO:18, SEQ ID NO:20, and SEQ ID NO:22, or with a DNA fragment complementary thereto, but exhibits no substantial hybridization when the hybridization conditions are highly stringent with genomic DNA from at least 95 % of spirochaetes randomly selected from the group consisting of *Borrelia hermsii*, *Borrelia crocidurae*, *Borrelia anserina*, and *Borrelia hispanica*. Furthermore, the invention relates to polypeptide fragments, vectors, transformed cells, and cell lines, a method of preparing a polypeptide fragment and, vaccines as well as diagnostic compositions and kits.

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